

Analysis of Medicare Reimbursement Rates and Procedure Volume in Ankle Arthroplasty and Ankle Arthrodesis: 2000 - 2020

Olufunmilola Adeleye, Jack Haglin¹, Muhammad Ali U Elahi, Todd Alan Kile²

¹Mayo Clinic, ²Mayo Clinic Arizona

INTRODUCTION: In foot and ankle surgery, ankle arthroplasty and arthrodesis (AAA) are common surgical treatments for end-stage tibiotalar arthritis. To our knowledge, procedural volume and reimbursement trends have not been assessed for these integral procedures. Our study aims to evaluate monetary and utilization trends for total ankle arthroplasty (TAR) and ankle arthrodesis (AA).

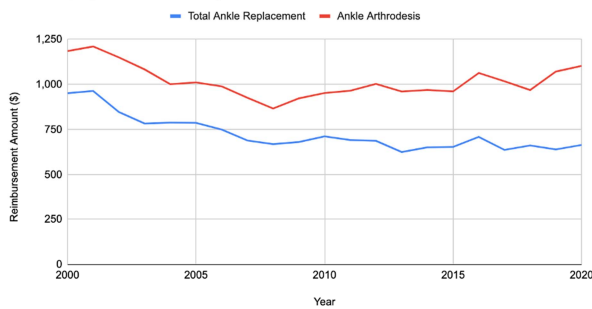
METHODS: A retrospective analysis was performed using the Physician Fee Schedule Look-Up Tool. TAR and AA Current Procedural Terminology (CPT) codes (27700, 27702, 27870, 29899) were queried; volume and reimbursement were extracted. All monetary data were adjusted for inflation to 2020 US dollars (USD) utilizing the consumer price index (CPI). Welch's unequal variance t-test was used for statistical analysis.

RESULTS:

From 2000 to 2020, 100,438 AAA surgeries (31% TARs, 69% AAs) were performed in the Medicare part B population and Medicare reimbursed physicians about \$95 million. Average reimbursement decreased by 1.62% and 0.22% for TAR and AA respectively (Figure 1). A statistically significant decrease in reimbursement in TAR compared to AA was found ($p < 0.005$). Average procedure volume increased by 10.20% in TAR and 2.44% in AA (Figure 2). A statistically significant increase in procedure volume in TAR compared to AA was found ($p < 0.005$).

DISCUSSION AND CONCLUSION: Our analysis demonstrates an increase in ankle surgeries among the Medicare population. Contrastingly, reimbursement decreased for both TARs and AAs, with TARs showing a more significant decline. In the current healthcare climate, these are important considerations in medical practice and policy, as well as for the aging population.

Mean Medicare Reimbursement to Physicians for TAR and AA Procedures 2000 to 2020 (Adjusted for Inflation)



Mean Annual Volume of TAR and AA Utilization 2000 to 2020

